Electrical World

Volume CXXII—July to December, 1944

McGRAW-HILL PUBLISHING COMPANY, INC. • 330 West 42nd Street, New York City

SUGGESTIONS FOR USE OF INDEX

Articles in this index are arranged alphabetically according to subjects. This is not an index of titles. Each article is indexed under the general subject which the article treats. For example, if the article deals with generator testing it will be indexed under *tests*, if it treats industrial wiring it will be indexed under *wiring*, etc.

Feature length articles and major news items have been cross-referenced to facilitate location of articles without extended search.

The following material has not been indexed:
Personal items.
New Equipment.
Book Reviews.
Rate Changes.
Minor Financial News.
Minor Manufacturing and Market News.

Related articles have been grouped under such headings as:

Appliances—All articles dealing with ranges, water heaters, ironers, etc., are indexed under appliances, rather than under the type of appliance discussed.

Associations, Societies and Governmental Agencies—Major News items and articles relating to this group are indexed under the individual organization name.

Court Decisions and Suits—Major items are indexed under the name of the company involved.

Public Utilities—Articles dealing with individual power companies, and with their related activities, are indexed alphabetically under the company name and *not*, as formerly, under the heading Public Utilities.

Rural Electrification—All articles dealing with various phases of supplying service to rural areas are indexed under this subject head.

Statistics—All articles dealing with any type of statistics are indexed under Statistics, regardless of the general subject class that the article falls under.

Steam Stations and Developments, Hydro Plants and Developments—Articles about generating stations are listed under one or the other of these heads, according to the type of station.

Following the main index is an index of authors of signed articles. In this index the exact title is listed.

GENERAL ALPHABETICAL INDEX

A

Accounting:
Arkansas Power & Light fights accounting order (N) Dec. 2..... 6
Ohio electric utility accountants organize (N) Sept. 30..... 84
Philadelphia Electric ordered to adjust accounts July 1..... 9
Advertisements:
Rockland Light & Power shows hurricane difficulties to customers (N) Sept. 30 82
Wisconsin advertisements tell history of rural electrification Sept. 2.....*118
Alabama Power (N) July 22, 85; (N) Dec. 30 4
Alabama Water Service (N) Sept. 16..... 94
Aluminum—reduction in production (N) Sept. 9 10
American Gas Association meeting (N) Oct. 14 114
American Institute of Electrical Engineers:
New York Section meeting (N) Dec. 23 83
Pacific Coast District meeting (N) Sept. 9 ..... *7
St. Louis meeting (N) July 1..... 5
St. Louis sessions July 8, *80; correction July 22..... 79
Speaker advocates round table discussions (N) July 8..... 94
American Society of Mechanical Engineers:
Mid-year meet in Pittsburgh (N) July 8 98
New York meeting Dec. 9..... 98
American Standards Association—Army Ordnance presents Service award (N) Sept. 24..... 6
Appalachian Electric Power (N) Nov. 11..*115

Appliances:
Chicago survey of urban appliance market (tables) Nov. 25..... 120
Consolidated Gas, Electric Light & Power lost on appliance sales but sale of power rose (N) Nov. 11..... 110
Dealer cooperation program for post-war outlined by Public Service Co. of Indiana Sept. 30..... 116
Duquesne Light reveals sales plan (N) Nov. 11 109
Financing installment sales of appliances, Connecticut. L. A. Mayo Dec. 23 72
Hartford Trading Post (N) Sept. 9... 4
Hartford's "Trading Post" speeds up Dec. 23 116
Installment payments on appliances for future delivery. K. L. Ede, Sept. 16 126
Irons contribute a diversified demand to peak loads. L. L. Perry, Aug. 19 140
Irons to be manufactured (N) July 22 85
Irons to be sold at March, 1942 prices (N) Aug. 26..... 9
Locker plants will sell home freezers Aug. 19 142
Maine users like present ranges Nov. 25 120
Manufacturers unable to meet WPB quotas (N) Nov. 11..... 111
Milwaukee surveys future appliance market (N) July 15..... 9
Omaha customers told to order appliances now. Mrs. B. E. Marsh, Nov. 11 142
Post-war "miracle" home greatly over-sold Aug. 5..... 130
Range—father of the electric range (Ed) Sept. 16..... 89
Ranges to be manufactured by three companies (N) Aug. 5..... 101
Ranges, water heaters and refrigerators average annual kw.-hr. July 8... 124
Reconversion orders aid manufacturers get ready (N) July 29..... 7
Records of kilowatt hours used by residences gives direction of post-war sales. S. R. Finley, Sept. 2... 110
Renters enticed by modern appliances Aug. 19 141
"Swap" service started by Pacific Gas & Electric (N) Dec. 16..... 15
Vacuum cleaners still held up (N) July 8 98
WPB changes eight appliance orders (N) Aug. 26..... 10
WPB gives restricted approval for appliance production (N) Aug. 19.. 103
Water heater production approved by WPB (N) July 15..... 8
Which appliances will farmers buy? Dec. 9 148
Argentina:
American utility rights cancelled (N) July 22 84
Seizes paper for opposing utility steal (N) Aug. 12..... 9
Plans expansion (N) Nov. 11, 112; (N) Dec. 2 7
Arkansas-Missouri Power (N) Nov. 25, 90; (N) Dec. 2..... 6
Arkansas Power & Light (N) Sept. 2, 82; (N) Sept. 16, 94; (N) Sept. 23, 10; (N) Oct. 7, 15; (N) Oct. 28, 100; (N) Dec. 9, 114; (N) Dec. 30..... 10
Arkansas Power & Light denied permission to buy system (N) Oct. 21.... 6
Fights accounting order (N) Dec. 2.. 6
"Original cost" eliminated as rate base (N) Aug. 5..... 97
Arizona Edison (N) Aug. 19..... 106
Army Service Forces meeting at St. Louis (N) July 15..... 5
Associated Electric wants money seized by Internal Revenue Collector (N) Aug. 12 8
Associated Gas & Electric (N) Sept. 2.... 81
Awards:
A.I.E.E. Edison medal won by Dr. Alexanderson (N) Dec. 16..... 6
American Standards Association given award of Army Ordnance (N) Sept. 24 6
McGraw medal goes to Carl M. Snyder (N) Dec. 2..... 7
Axonograph translates orthographic drawing to three dimensional Oct. 28...*106

B

Benton County Utilities (N) Aug. 12..... 6
Bingham Electric (N) Nov. 4..... 10
Blasting without fouling power lines Oct. 28 ..... *121
Boston Edison starts construction of line (N) Oct. 7..... 7
British Columbia:
Brentwood Bay plant installs another generator (N) Aug. 1..... 106
Oil ban accentuates power famine (N) July 22 90
Plans for taking over public utilities (N) July 29..... 7
West Kootenay Power & Light power production (N) Sept. 2..... 86
Brooklyn Edison (N) Sept. 23..... 8
Bushings:
Reconditioning of dry and compound bushings. E. L. Schlottere, July 22 ..... *78
Sealing bushings with taping Oct 14..*137

C

Cables:
Cable field testing and fault location. Fenn & Gray, Aug. 19..... *97
Chamber for testing water-tight joints. W. P. Bonwitt, July 22..... *142
Chart for cable temperature attainment factor-temperature-time curves. L. G. McDowell, Oct. 14..... *130
Construction of duct splice for 600-volt rubber and lead stranded cable Dec. 9 ..... *132
Construction of straight joint for round conductor cable Oct. 28..... *116
Determining cable test schedules. Avila & McFarlin, Sept. 16..... *85
Earth ambient temperatures for cable loading limits. J. G. Hieronymus, Dec. 9 ..... *92
Float cable on steel drums. W. K. Self Dec. 23..... *89
Fraction coefficients in cable pulling. Archie Benjamin, Nov. 11..... *116

(E) Editorial. * Illustrated. (N) News.

Galvanic corrosiveness of soil found by simple pH test. Phelps & Kuhn, Aug. 19 ..... *93
Ground temperatures for cable loading. Archie Benjamin, Nov. 25, *93; correction, Dec. 9 143
How to calculate voltages, currents and losses in sheaths of single-conductor cables. R. C. Waldron, Nov. 25 ..... *102
How to determine thermal constants of cable. L. G. McDowell, Aug. 19 .*122
How to make a joint for single-conductor, 600-volt cables Sept. 30 ..... *104
Industrial x-ray inspects cable Oct. 14 .*133
Interrupter locates submarine cable faults. D. F. Tulloch, Aug. 5 ..... *108
Lightning surge passing through a cable in an open wire line. R. C. Waldron, Sept. 2 ..... *102
Limiting lightning surge at cable terminals. R. C. Waldron, Sept. 16 ..... *115
Metallic sheaths, shielding grounded. R. C. Waldron, pt. 1, Sept. 30, 95; pt. 2, Oct. 14, 134; pt. 3, Oct. 28, 108; pt. 4, Nov. 11 136
Method of racking cables Sept. 16 ..... *104
Nomograph aids in locating cable faults. Richard Hoeller, Dec. 9 130
Nubun, synthetic rubber, insulation for cables Aug. 19 114
Numerical tape for wire identification. Argale Paul, Nov. 11 ..... *134
Portable cable testing outfit, Aug. 19 .*113
Predetermination of sheath vibration failures Nov. 11 ..... *122
Preparation for treating cable rash Oct. 28 90
Sleeveless duct-splice devised for lead-sheath cable. Bowen & Brown, Nov. 25 ..... *80
Sleeve's lining holds cable splice, Dec. 9 ..... *119
Table of resistance of lead cable sheaths. L. G. McDowell, July 22 .. 140
Test method hastens cable aging Nov. 25 ..... *94
Thermal resistance of insulation single-conductor cable. L. G. McDowell, Sept. 16 ..... *110
Three-core 132-kv cable uses 200 psi. nitrogen Nov. 25 112
Welded reel clamp facilitates handling Aug. 5 ..... *120
Wooden anchors used for submarine cable Sept. 2 ..... *88
California Electric Power (N) July 29 9
California-Pacific Utilities purchases Western States property (N) July 1, 7; (N) Aug. 5 100
California Public Service systems to be bought by Pacific Gas & Electric (N) Oct. 21 8
California Public Service to buy two systems (N) Nov. 11 112

Canada:

Alberta power companies developing test areas (N) Aug. 19 107
Caledon Electric now Ontario Hydro operated (N) Dec. 16 8
Calgary Power tries rural electric test (N) Sept. 16 96
Central stations output for May (N) July 22 88
Electric cooking plate restrictions lifted (N) Nov. 11 108
Forms own "NEMA" organization (N) Dec. 16 4
Halifax asks Nova Scotia to aid plant value study (N) Dec. 2 8
Lifts restrictions on power (N) Nov. 11 110
Montreal Light, Heat & Power reorganization (N) Aug. 26 9
Ontario sees Ottawa as source of power (N) Dec. 30 5
Ottawa Council prevents move to buy power company (N) July 15 10
Quebec hydro head dropped from post (N) July 15 9
Quebec Power buys Ste. Catherine system (N) Nov. 25 86
Canadian Electrical Association meets at Murray Bay (N) July 15 7

Capacitors:

Capacitors reduce induction flash Oct. 28 ..... *108
Fixed boost and capacitor on even terms. Woodward, Loomis, Nov 11 .. 203
Fixed boost vs. shunt capacitor in distribution system regulation. R. O. Loomis, Aug. 19 ..... *88
Ground all capacitor terminals—be safe. S. H. Pollock, July 8 ..... *101
Cape Fear Power chartered (N) Dec. 23 ... 82
Carolina Power & Light (N) Aug. 12, 16; (N) Dec. 2 15
Carrier current—frequency modulation carrier telephone applied on 230-kv line. E. W. Kenefake, Dec. 23 ..... *74
Catalog for the vendor. G. M. Aron, Aug. 19 165
Cement deposit remover Oct. 28 ..... *107
Central New York Power (N) Aug. 5 .. 102
Central States Edison (N) Nov. 11 109
Central States Electric (N) July 29, 9; (N) Sept. 2 84
Central States Power & Light proposed sale (N) July 29 9
Chile—transformer transported by trailer. Dec. 23 ..... *91

Circuit breakers:

Engineers observe circuit-breaker test (N) Oct. 14 ..... *113
5-cycle oil breaker 115 kv and above. A. W. Hill, Aug. 5 ..... *105
Fuses and circuit breakers in industrial plant distribution. L. C. Peterman, Sept. 16 ..... *72
Rectox-operated circuit breakers. B. L. Hayford, Nov. 25 ..... *95
Resistance switching for 132 kv circuits July 8 102
Selection of circuit breakers for motor protection. G. L. Cole. Dec. 23 100
Simplification pays out in breakers Sept. 16 ..... *104
Single-pole reclosure holds stability and stresses. W. A. Derr, Sept. 30 .. *68
Cleveland Electric Illuminating (N) Oct. 14, 110; (N) Nov. 11 108

Coal:

Aluminum-magnesium cutbacks conserve fuel for power systems (N) Aug. 12 6
Bituminous coal supply dwindles (N) Dec. 30 3
Bituminous production must be increased (N) July 22, 83; (N) Oct. 7. 5
Bituminous coal reserve (N) Aug. 19 .. 107
Diversion of high-grade coal will affect utilities (N) Sept. 2 83
Miners needed to raise soft coal supply (N) Oct. 14 114
National Association of Purchasing Agents compiles data to save coal cost (N) July 15 10
OWU reveals coal needs after V-E day (N) Dec. 16 6
Solid Fuels Utilization to study small anthracite coal (N) July 1 8
Spraying oil rules amended (N) Oct. 28 102
Strikes in soft coal area menace supply (N) Sept. 9 3
Trouble ahead for high grade coal users. R. N. Larkin, July 22 82
Columbus & Southern Ohio Electric (N) Dec. 9 112
Commonwealth Edison (N) Sept. 9 10
Commonwealth & Southern and TVA arrange tie-line regulation (N) Nov. 18 8
Condensers—Nomogram calculates condenser discharge time. J. B. Hoag, Sept. 2 98

Conductors:

Correction of temperature measurement on short conductors. J. J. Taylor, Dec. 23 ..... *104
Corrosion tests on copper-steel wires Aug. 19 130
Temperature correction for short conductors. J. J. Taylor, Nov. 25 98
Connecticut Light & Power (N) Sept. 16 .. 96
Case to be reviewed (N) Oct. 14, 119; (N) Dec. 16 5
Consolidated Edison makes survey of New York City manufacturing possibilities Nov. 11 142
Merger hearing (N) July 22, 28; (N) Sept. 23 8
Construction—OWU eases limits on utility building (N) Sept. 30 82
Contacts—Electronic sorting of tiny contacts Sept. 16 ..... *118

Contracts:

Renegotiation forms sent utilities (N) Aug. 12, 5; (N) Sept. 9 9
Street lighting contracts Dec. 9 150

Controls:

Design of automatic welding machine control. Porter & Nott, Sept. 30 ... *72
Electronic stabilizer and regulator July 22 ..... *128
Heat-time-relationship controls electric furnace Sept. 2 ..... *90
Motor operated air switches save oil circuit breakers. L. M. Robertson, July 22 ..... *129
Motor starter cuts peak current Sept. 2 ..... *89
Power supply and control of all-electric tin plate production. C. J. Duby, July 8 ..... *74
Rectox-operated circuit breakers. B. L. Hayford, Nov. 25 ..... *95
Silverstat-controlled electro-magnetic valves stabilize turret gun in tanks, Sept. 30 ..... *108
Start-stop control for gang-tested meters. A. N. Craig, July 22 ..... *134
System test checks relay operations. Interstate Power. Hummel & Chambers, Sept. 30 ..... *96

Cooking—electric:

Duquesne Light appraises commercial cooking load. F. A. Kolb (tables), Aug. 5 ..... *78
Garden on sales floor stimulates canning. Sept. 30 ..... *116
Tampa Electric helps can food for G. I. Christmas. Dec. 9 ..... *146

Copper:

Nazi defeat will lighten control on copper wire (N) Sept. 30 82
WPB limits shipments (N) July 29 9

Corrosion:

Corrosion tests on copper-steel wires Aug. 19 130
Hot dip lead alloy with low tin content used to render metals corrosion resistant Aug. 19 134
Precautions to avoid galvanic corrosion July 8 112

D

Dallas Power & Light (N) Aug. 26, 6; (N) Aug. 26 10
Detroit Edison (N) Nov. 25, 90; (N) Dec. 2 9
Denied rehearing by Court (N) July 8 96
Refund is ordered (N) Aug. 12 3
Developing tank for long oscillograph films. A. A. Miller, Dec. 9 ..... *120

Distribution Systems:

Benefits of higher voltages on industrial power systems. D. L. Beeman, Sept. 2 ..... *73
Chance for distribution savings mostly beyond transformer. Fiedler & Drake (charts), Sept. 30 70
Code requirements for minimum wire spacing. Philip Morrill, Nov. 25 .. *106
Columbus network feeders use compensated regulators. Brown & Marquette, July 8 ..... *72
Compensated compensator. E. C. Edmonds, Oct. 28 112
Deadend equalizes strain on pins Sept. 30 ..... *98
Distribution for the coming rural load. A. E. Knowlton, Sept. 16 75
Distribution transformer lightning protection data (table) July 22 136
Extensions solve relocation problem. J. J. Graven, Sept. 30 ..... *98
Fixed boost vs. shunt capacitor in distribution system regulation. R. O. Loomis, Aug. 19 ..... *88
Fixed boost and capacitor on even terms. Woodward, Loomis Nov 11 .. 203
Four-pole platform for industrial power bank Sept. 16 ..... *99
Locating trouble on 3-phase ungrounded secondaries. A. B. Jones. Dec. 23 ..... *62
Method for determining size of guy for a given load. F. W. Nimmer (charts), July 22 138
Method of cutting-over 2,300 volt delta to 4,000 wye. J. J. Burri, pt. 1, Dec. 9; 121 pt. 2 Dec. 23 92
Need for studying load diversities (Ed) Oct. 28 95
Puget Sound installs overhead primary network. M. T. Crawford, Oct. 14 ..... *90
Quebec Hydro-Electric Commission working data sheets Oct 28 114
Single-pole reclosure holds stability and stresses. W. A. Derr, Sept 30 .. *68
Three-wire primaries double loading. E. A. Stanger, July 8 ..... *112
Transformer connections and grounding method to obtain lightning protection. L. M. Hebsamen, Dec. 9 .*138
Dominion Gas & Electric (N) Aug 5 102

Ducts and Manholes:

Hook for lifting manhole July 22 .... *129
How to construct underground duct with fiber conduit and concrete Dec. 9 ..... *134
Smaller trucks usable for pumping manholes Nov 25 ..... *118
Duke Power (N) Sept 2, 82; (N) Nov 11 ... 108
Duquesne Light (N) Sept 9 9
Sales policy (N) Nov. 11 109

E

Edison Electric Institute:
Commercial Committees reorganized (N) Dec. 9 113
Committee studies normal duty problems (N) Oct 21 7
Committee studies relays for transmission systems (N) Oct 14 112
Radio hearings (N) Nov. 4 9
Studying the hurricane problems (N) Oct. 28 98
Eire:
Power shortage (N) Nov. 11 108
Electric Bond & Share (N) Aug. 12, 7; (N) Dec. 9 116
Stockholders ignore mismanagement charges (N) Oct 21 8
Electrical Association of New Orleans (N) Dec. 9 ..... *113

Electronics:

Electron-optical voltmeter Nov. 11 .*134
First national electronics forum held at Chicago (N) Oct 14 111
Sorting tiny contacts with electronic relay Sept 16 ..... *118
Stabilizer and regulator gives fine control July 22 ..... *128
Study of electronics encouraged in Ohio (N) July 1 ..... *8

(E) Editorial. * Illustrated. (N) News.

tro-plating—Power supply for all-electric tin plate production. C. J. Duby, July 8..... *74
ire District Electric Co. (N) July 8.. 92
Merger with three utilities approved (N) Aug. 12..... 6

loyees:
Bonneville wage policy criticized (N) Sept. 9..... 10
Court dissolves injunction restraining union boycott of manufacturers (N) Oct. 21..... 3
Dayton Power & Light tells employees how they serve in war Aug 5..... 137
Duke Power gives basic course for new linemen (N) Nov. 11..... 108
Employers seeking labor face WMC restrictions (N) July 1..... 3
Handicapped veterans employed in Westinghouse (N) Sept 9..... *18
Old wages for new jobs (N) Sept. 16.. 92
Indiana Public Service makes annuity plan (N) Nov. 11..... 110
Labor's place (Ed) Nov. 25..... 65
Pension plan approved for South Carolina Power (N) Aug. 12..... 7
Pension plan set up by Wisconsin Utility (N) July 29..... 10
"Portal to portal" payment made to Wisconsin men (N) July 29..... 6
Retirement pay for Utah Power & Light employees approved (N) Dec. 9..... 115
San Francisco court frees contractors, unions in anti-trust suits (N) Sept. 9 6
Union loses wage case (N) Sept. 16.. 94
Union men to study electronics (N) Dec. 2..... 8
Veterans given 90 days to reclaim old positions (N) Dec. 23..... 92
WMC calls 4 localities labor shortage areas (N) Oct. 7..... 6
ineers—Integration of engineering (Ed) July 8..... 71
ope:
Power for liberated Europe. R. N. Larkin, Oct. 14..... 108
ort trade (Ed) Oct 28..... 27

F

deral Power Commission:
Budget raise requested (N) Nov. 25.. 90
E. R. de Luccia made chief (N) Dec. 30..... 3
Improved public relations (Ed) Nov. 11..... 104
Leland Olds approved for new term (N) July 15..... 2
Manly heads Commission (N) Sept. 30 81
Olds confirmed for post (N) Sept. 16.. 91
Rate revision saves U. S. 13 millions on power bill (N) July 15..... 5
Report on utilities (N) Oct 28..... 97
ing meter charts Aug. 19..... 136

inance:
Electrical firms learn profits over 6% allowed (N) Sept. 16..... 93
FPC reports on financial status of utilities (N) Oct. 28..... 97
Investment economies (Ed) Oct. 14.. 106
Missouri Commission rules on reserve fund income (N) Aug. 26..... 4

re protection:
Fire hazards and their elimination Sept. 16, 116; Sept. 30, 108; Oct. 14, 117; Oct. 28, 122; Nov. 11, 136; Dec. 9..... 142
Maintenance schedule for fire-fighting installations July 8..... 104
Rules for using hand-portable fire extinguishers Nov. 25..... 110
Types and characteristics of first-aid fire extinguishers Sept. 2..... 100
meproof paints and fabrics Aug. 19... 132
ood Control Bill approved (N) Dec. 16 7
rida Power (N) Aug. 5, 98; (N) Oct. 14, 116; (N) Nov. 25, 86; (N) Dec. 9..... 116
rida Power & Light (N) Nov. 11..... 112

anchises:
New Mexican county commissioners may grant franchises (N) Sept. 30.. 82

uel:
Effect of molecular structure of fuels Oct. 28..... 85
Magnesium reduction does not affect fuel situation (N) Dec. 9..... 112

uses:
Circuit breakers and fuses in industrial plant distribution. L. C. Peterman, Sept. 16..... *72
Fuses and reclosers on rural lines Sept. 2..... *87
Liquid in fuse shell. William Patterson, Sept. 2..... 137
Tripping mechanism replaces cutout fuse July 22..... *127

G

rbage incinerator fails to provide cheap power (N) Sept 9..... 8
Gas Industry (Ed) Oct. 14..... 89
General Electric (N) Aug. 26, 7; (N) Sept. 16,* 93; (N) Dec. 30..... 8
Cancels post-war planning series (N) Nov. 4..... 7

Generators:
Device removes excitation from generator when machine breaker opens Aug. 5..... *128
Maintenance and repair of generators. C. W. Smith, Sept 2..... *60
Georgia Power (N) Aug. 5..... 100
Germany—Germans supplied power for Allies invasion. Dec. 23..... 73
Great Britain:
Post-war domestic electrification planned (N) July 29..... 5

Grounding:
Bauch transformer damps cable faults. Nelson & Muller, Nov. 11.. *86
Counterpoise grounding protects high voltage lines. A. S. Runciman Nov. 25..... *66
Deep grounds reduce ohmic resistance. L. M. Rebsamen, Nov. 25... 96
Ground rods driven with jackhammer. J. J. Beeler, July 22..... *129
Limiting lightning surge at cable terminals. R. C. Waldron, Sept. 16.*115
Low-resistance grounds — kinds and merits. Dec. 23..... 113
Shorting and grounding capacitor terminals. S. H. Pollock, July 8...*101
Transformer connections and grounding methods to obtain lightning protection. L. M. Rebsamen, Dec. 9..... *138
Truck-mounted ground rod installs rod by pulling Aug. 5..... *93

H

Hartford Electric Light (N) Sept. 2..... 86

Heating—electric:
Bonding plywood with low voltages at 60 cycles Oct. 14..... 148
Copper brazing in electric furnace July 8..... 120
Dehydrating plant uses electric equipment (N) Nov. 25..... 86
Heat pump literature—abstracts Sept. 30..... 74
Heat-time-relationship controls electric furnace Sept. 2..... *90
High frequency heat aids forging job. L. M. Duryee, Nov. 25..... *120
High-frequency induction heater fuses cap seats Nov. 11..... *146
High-frequency heating of non-metallic materials Oct 28..... *91
High frequency induction heating and electro-plating used for tin plate production. C. J. Duby, July 8.... *74
Infra-red oven aids material handling Oct 28..... *129
Mine drain pipe thawed electrically. M. M. Devorris, Nov. 11..... *126
Nitriding furnaces at Wright Aeronautical (N) July 29..... 6
Resistance heating for quick soldering. M. A. Brown, Oct. 28..... *121
Thermoplastic when heated is drawable like steel. Dr. E. R. Perry, Dec. 9..... *124
"Toaster" principle used in curing glue Oct. 28..... *132
Turkey brooder Sept 2..... *110
Holding companies:
Supreme Court to decide United Light & Power case (N) Nov. 25..... 89
Supreme Court will rule on Act (N) Oct. 7..... 3

Home Service:
Florida home service advisers do excellent work Nov. 11..... *148
Garden on sales floor stimulates canning Sept 30..... *116
Laura McCall award goes to Ester Bride (N) July 15..... *9
Nebraska home lighting survey. Dec. 23..... 114
Tampa Electric helps can food for G. I. Christmas Dec. 9..... *146
Honolulu:
Hawaiian Electric Co. (N) Oct 28.... 98
Hawaiian Electric Co.'s financial report (N) Aug. 5..... 103
Houston Lighting & Power (N) Dec. 2.... 10

Hydro-electric plants and developments:
Alder Dam completed (N) Oct. 28..... 104
Appalachian Electric Power installs priming gate in flume gate July 8.. *99
Arizona water rights case ended (N) Oct. 14..... 116
Arkansas business leaders back Army engineers on flood control (N) July 1..... 9
Arkansas Valley Authority proposed by Byrns, editor (N) Dec. 2..... 6
Bagnell project may be regulated by FPC (N) Oct. 7..... 7
Bonneville's alumina plant to have new transformer (N) July 15..... 6
Bonneville construction program (N) July 29..... 10
Bonneville Dam profits challenged (N) July 25..... 4
Bonneville Power Administration labor legislation considered by Interior Department (N) Sept. 25.... 8
Bonneville Power Administration supplies Northwest with power (N) Oct. 14..... 114
Bonneville's switching station under way (N) Dec. 30..... 9
Bonneville to complete transmission line (N) Aug. 19..... 109
Bonneville to construct 54-mile line (N) Aug. 26..... 8
Boulder Dam power purchased by Los Angeles (N) Aug. 5..... 101
Boulder Dam power released with the shutting down of Basic Magnesium (N) Sept. 30..... 87
Boulder Dam revenue distribution disputed by Clark County, Nev. (N) Dec. 30..... 5
Buckingham Landing Dam protested by citizens (N) Dec. 2..... 8
Central Valley Project hearing (N) July 8..... 95
Central Valley Project leads to injunction suit against Harold Ickes (N) Nov. 4..... 9
Central Valley Project may be operated by California (N) Oct. 7..... 6
Central Valley project 99% complete (N) Nov. 11..... 114
Colorado River area power development planned (N) Aug. 12, 5; (N) Oct. 28..... 103
Colorado River water supply meeting (N) Aug. 5..... 99
Danville, Va. water low, asks help (N) Aug. 19..... 108
Denison Dam dedication (N) July 15.. 9
Denison Dam-Texas Power pact approved (N) July 1..... 9
Flood Control Bill to be amended (N) Dec. 2, 3; (N) Dec. 9..... 111
Flood Control Bill will effect federal power policy. R. N. Larkin, Dec. 9. 110
Fort Peck power bill introduced (N) Sept. 16..... 92
Grand Coulee caisson project started (N) Dec. 2..... 9
Grand Coulee-Covington line in operation (N) July 8, 91; (N) Oct. 28.... 98
Granges of western states oppose bill protecting utilities (N) Sept. 2.... 84
Green River, Wash. power development not favorably reported (N) Nov. 11..... 110
Hetch Hetchy power remains a problem (N) Dec. 9..... 113
Hetch Hetchy power sale ban not to be suspended (N) July 1, 4; (N) July 22..... 89
Hetch Hetchy power sale injunction (N) Sept. 2, 81; Sept. 9..... 8
Hetch Hetchy surplus grows as plant closes (N) Aug. 12..... 4
Hetchy Power will not go to Navy Yards (N) Dec. 23..... 82
Kentucky Dam goes into operation (N) Sept. 16, 95; (N) Sept. 30..... 86
Kings River hydro permit denied (N) Sept. 16..... 93
Mexican treaty—Nevada was not snubbed. F. C. Merriell, Sept. 16... 161
Mexican water treaty controversy (N) July 29..... 7
Missouri Valley Authority is proposed in Congress (N) Aug. 19, 105; (N) Sept. 30, 83; opposed (N) Nov. 4.... 8
Missouri Valley Authority, more of the same. R. N. Larkin, Sept. 7.... 78
Missouri River Valley development conflict settled by Army and Interial Department (N) Nov. 18..... 9
Muskingum River license denied by FPC (N) Sept. 2..... 85
National Rivers group against any new agencies (N) Aug. 5..... 100
Nebraska power situation (N) Nov. 4 6
New "TVA'S" opposed by Mississippi River Assn. (N) Oct. 21..... 9
Nisqually license for second project accepted by Tacoma (N) Nov. 11.. 114
Norfolk Dam output to be bought by Arkansas Power & Light (N) July 15..... 8
Owens Gorge power resources studied (N) Aug. 19..... 106
Pacific Gas & Electric's Pit 5 plant design. E. F. Maryatt, July 22.....*71
Ross Dam flooding will be helped financially by British Columbia (N) Oct. 7..... 9
Ross Dam work may be halted (N) July 22..... 87
Safe Harbor case hearing (N) Dec. 2 10
St. Lawrence seaway project amendment offered (N) Nov. 25..... 97
St. Lawrence Seaway is defeated (N) Dec. 16..... 7
Salt River Valley power system may be bought by Ickes (N) Nov. 11.... 109
Savannah River development proposed (N) July 1..... 10
Shasta Dam and powerhouse design features Aug. 5..... *83
Shasta Dam starts delivery (N) July 22..... 86
Tennessee Valley Authority sells power to Louisville Gas & Electric (N) Sept. 16..... 94
TVA and Commonwealth & Southern arrange tie-line regulation (N) Nov. 18..... 8

(E) Editorial. * Illustrated. (N) News.

Vermont Dam plans studied (N) Nov. 11 109
Vernon project granted license (N) Aug. 19 106
Water wheels restored by welding July 22 ..... *142

I

Idaho Power (N) July 29..... 10
To take over 4 systems (N) July 1, 8; (N) Aug. 12..... 9
Illinois-Iowa Power (N) Aug. 26..... 7
Illinois Power (N) July 29, 9; (N) Oct. 21 8
Illuminating Engineering Society:
Conference (N) Sept. 23..... *7
Ends agreement for lamp certification (N) Dec. 9..... 115
Lighting research fund established (N) Sept. 23..... 8
Trustees of the Research Fund organize Dec. 2..... *5
Indiana Electric Association meeting (N) Sept. 30 ..... *85
Indiana General Service to merge with Indiana & Michigan Electric (N) Nov. 11 112
Indiana & Michigan Electric and Indiana General Service merge (N) Dec. 30.. 7
Indianapolis Power & Light (N) Oct. 7.. 6
Indoor Climate Institute—first chapter inducted at Buffalo (N) Dec. 9..... *115
Industrial electricity requirements 1939-1944 (table) July 8..... 73
Industrial power systems find benefits in raising voltages. D. L. Beeman, Sept. 2 ..... *73

Insulation:

Earth ambient temperatures for cable loading limits. G. Hieronymus, Dec. 9 ..... *92
Fungus growth on insulation. C. F. Hanson, Sept. 2..... 137
Insulating varnishes; properties and applications. G. J. Hepp, Sept. 2... 70
Nubun, synthetic rubber, insulation for cables Aug. 19..... 114
Rollers used to strip insulation July 5.*112
Silicones' effect on apparatus design (Ed) July 22..... 81
Thermal insulating material called Texolite. Dr. J. J. Pyle, Dec. 9.... 126
Thermal resistance of insulation single conductor cable. L. G. McDowell, Sept. 16 ..... *110
Three-core 132-kv cable uses 200 psi. nitrogen Nov. 25..... 112

Insulators:

Boys shoot 87 insulators but 33-kv line stays in (N) Nov. 25..... 88
Live 220-kv line insulators washed to stop leakage. Bremner, Mueller & Scofield, Aug. 5..... *90
Plastic chemistry in the electrical field. Goggin & Boyer, Dec. 9.....*100
When to wash dirty insulators. Bremner, Mueller & Scofield, Aug. 5.....*107
International Assn. of Electrical Inspectors:
Northwestern Section meeting (N) Sept. 2 80
Post-war Redevelopment Committee meeting (N) Sept. 30..... 88
Southwestern Section meets (N) Sept. 9 6
Western Section (N) Sept. 30..... 86
International Association of Electrical Leagues—meeting at Detroit (N) Sept. 30 88
International Hydro-Electric told to sue paper company (N) Nov. 25..... 89
International Utilities (N) Aug. 5..... 102
Interstate Power Club meeting (N) Nov. 18 10
Interstate Power to acquire Central States Power & Light properties (N) July 29 8

Inventory:

L-151 provides controls based upon inventories (N) Dec. 15..... 8
OWU abolishes report (N) Oct. 7..... 8
U-1 restrictions relaxed by OWU in supplement (N) Sept. 2..... 79
Iowa Electric Light & Power (N) Dec. 9.. 115
Iowa Public Service (N) Nov. 4..... 8
Iowa Union Electric absorbed by Union Electric of Illinois (N) July 29.... 8
Iowa Utilities Association—post-war conference (N) July 8..... *92

K

Kansas Gas & Electric (N) July 15..... 4
Kentucky Edison (N) Nov. 25..... 88
Kentucky Utilities (N) Oct. 7, 4; (N) Nov. 4 6
Rural plan opposed by co-ops (N) Dec. 9 116
Users receive "coal clause" cuts (N) Aug. 19 106
Kentucky-West Virginia Power (N) Aug. 5 104

L

Laclede Power & Light facilities to be bought by Union Electric Co. of Missouri (N) Aug. 5..... 101
La Porte Gas & Electric purchased by Northern Indiana Public Service (N) Dec. 23..... 87
Lawrence County Water, Light & Cold Storage (N) Aug. 12..... 6

Lightning:

How a lightning surge passes. R. C. Waldron, Sept. 2.....*102
Limiting lightning surge at cable terminals. R. C. Waldron, Sept. 16 .....*115
Plastic counter for lightning strokes Sept. 2 .....*104
Protector tubes minimize outages. J. R. Rawls, Nov. 11..... 102
Transformers and lightning. E. A. Whitmer, Aug. 2..... 162

Lights and lighting:

Better light-better sight celebated tenth anniversary, July 22.....*91-102
Better light-better sight for ten years. H. P. J. Steinmetz, July 22..... 92
Cold cathode lighting safety measures Nov. 25..... 95
Contract fluorescent lighting maintenance. D. G. Mitchell, Dec. 9..... 106
Dimount paint removed from luminaires by marble-sand blast. Edwards & Van Meter, Oct. 14.....*105
Fluorescent fixtures made of colored plastic Sept. 30.....*118
Fluorescent inspection device speeds textiles Aug. 5.....*134
Flourescent lamp performance is effected by choice of circuit. A. C. Barr Aug. 19..... *91
Fluorescent light parts inventory requested by WPB (N) Sept. 2..... 81
Fluorescent lighting fixture limits changed (N) Dec. 2..... 9
Fluorescent lighting for trolley bus servicing, Roy Bridges. Dec. 23.....*114
Fluorescent sales the utility factor Sept. 16 84
I.E.S. ends agreement for lamp certification (N) Dec. 9..... 115
Improper school lighting endangers pupils' health—I.E.S. meeting (N) Sept. 23 7
Invisible light adapted from fluorescent tubes Sept. 2..... 116
Lamp order L-28 revoked by WPB (N) Oct. 7..... 8
Lighting for inspection clinic Oct. 14.. 144
Lighting market for the next five years. Atwater & Kilpatrick (charts) July 22, 94; correction Aug. 5 100
Lighting research sponsored by I.E.S. (N) Sept. 23..... 8
Lighting salesmen need wiring knowledge Oct. 28..... 132
London dimout a failure (N) Nov. 25 90
Management's desires in store lighting Dec. 9 146
Mercury lamp has wide light range Oct. 14 .....*150
Military lamps authorized (N) July 1 10
Nebraska home lighting survey. Dec. 23 114
Nickel, tungsten supplies for lamps grow smaller (N) Oct. 7..... 8
Research Fund on lighting (Ed) Oct. 14 107
Restrictions on metal use in lighting fixtures eased (N) Aug. 26..... 15
Rural customers order lamp bulbs by mail Aug. 5.....*130
Street lamp breakage reduced by appeals to school children July 8.... 124
Street lamps coated by Rochester engineers. Arthur Kelly, Oct. 14....*144
Street lighting bonds for Chicago approved (N) Nov. 4, 7; (N) Nov. 25.. 88
Street lighting contracts Dec. 9..... 150
Street lighting fixtures painted with special truck. D. B. Hill, Sept. 16.. *99
Street lighting is an instrument for public safety (Ed) Aug. 19..... 83
Street lights in Portland, Ore. changed to incandescent (N) Aug. 12..... *9
Thunderstorm occasions load rise in New York City (N) July 1..... 9
What relighting means to America. H. M. Sharp, July 22..... 99
What relighting means to public safety. W. M. Greene, July 22..... 101
What relighting means to vision. Matthew Luckiesh (charts) July 22 96
Lincoln Electric suit against the government to be tried (N) Aug. 12..... 6

Load building:

Duquesne Light appraises commercial cooking load. F. A. Kolb (tables) Aug. 5 ..... *78
Power salesman's views on home load building. S. A. Hale, Nov. 25..... 138
Production method analysis effective in solution of customer's problems Aug. 19 138
Records of kilowatt hours used by residences gives direction of post-war sales. S. R. Finley, Sept. 2..... 110
Today's thinking on tomorrow's load building. F. R. Innes, Nov. 11....87-98
Lock for substation gate. H. A. Dilberger, Nov. 25 .....*112
Lockport & Newfane Power & Water Supply (N) July 29, 15; (N) Oct. 7 10
Los Angeles Department of Water & Power (N) Dec. 30..... 5
Louisville Gas & Electric (N) Sept. 16, 94; (N) Sept. 30..... 84
City to buy (N) July 1, 4; July 8..... 96
Lubrication—oils and lubrication of steam turbines. A. F. Brewer, pt. 1, Sept. 30, 93; pt. 2, Oct. 14, 138; M. L. Langworthy, pt. 3, Oct. 28, 126; A. F. Brewer, pt. 4, Nov. 11, 134; R. J. Ronan, pt. 5, Nov. 25, 112; J. A. Triska, pt. 6, Dec. 9, 140; pt. 7, Dec. 23 110

M

Madison Light & Power resold (N) Aug. 12 8
Magnesium:
Absorbing magnesium production (Ed) Sept. 2 77
Magnesium cutback will mean fuel savings (N) Sept. 16..... 94

Maintenance:

Cleaner for air preheater. Dec. 23.....*110
Contract fluorescent lighting maintenance. D. G. Mitchell, Dec. 9..... 106
Copper bent on home-made horse. Thomas Dunn, Dec. 23..... *98
Determining cable test schedules. Avila & McFarlin, Sept. 16..... *85
Dimount paint removed from luminaires by marble-sand blast. Edwards & Van Meter, Oct. 14.....*105
Dowel pin pullers July 8..... *102
Generator maintenance and repair methods. C. W. Smith, Sept. 2..... *60
How to clean oil drums. M. A. Brown, Nov. 11 .....*126
Hurricane of Sept. 14 makes repair problems difficult (N) Sept. 23..... *3
Plastic insulating tube in cooling water lines of turbine controls acidity of lubricating oil. E. J. Drewelow, Aug. 19.....*111
Steam cleaning cuts transformer repair cost. M. A. Brown, Sept. 2.. *94
Zoning service calls cut mileage for serk. L. H. Kistler, Sept. 16..... 124

Manufacturing:

Consolidated Edison making a survey of manufacturing facilities in New York City Nov. 11..... 142
Electrical manufacturers charged with conspiracy (N) Nov. 18..... 9

Materials:

U-1 addition simplifies material procurement (N) July 22..... 84
U-1 procedures simplified. R. N. Larkin, Aug. 5..... 96
U-1 restrictions relaxed by OWU (N) Sept. 2 79
WPB warns CMP rule doesn't allow wire sale (N) Oct. 21..... 8
Merchandising:
Can utilities merchandise at a profit? (Ed) Dec. 9..... 108
Post-war "miracle" home greatly over-sold Aug. 5..... 130

Meters and measuring:

Bench mounts meters reachably. C. W. Pinkel, Nov. 11.....*115
Board for long tests of demand meters. A. J. Holthaus, Nov. 25..... *75
Branch resistance of "delta" network. H. G. Yarrill, Sept. 2.....*106
Checking meter connections without tracing wires. W. C. Noddings, Dec. 23 ..... *90
Comparison of socket and "A" type meters. C. M. Hirst, Aug. 5..... 106
Demand register kit Sept. 30..... *96
Dial and load tests on one gang board in Canada Oct. 28.....*105
Electron-optical voltmeter developed Nov. 11 .....*134
Filing meter charts Aug. 19..... 136
Gang-tests maximum demand registers. Sam Silverman, Sept. 16....*100
Graphical determination of parallel impedance. L. G. Betz, Oct. 14.....*119
How to improvise a phase-sequencer. A. R. Constant, Sept. 2..... *87
How to make meter insulation tests Nov. 11 .....*120
L-151 provides controls of meters based upon inventories (N) Dec. 16 8
Large outdoor foot-candle meters suggested. C. W. Zersen, Sept. 16. 161
Meter boxes recommended for manufacture (N) July 29..... 8
Meter manufacture approved (N) Sept. 2 86
Meter testing made easier by studying motions. Wallace Harrison, Sept. 2* *69
Plastic counter for lightning strokes Sept. 2 .....*104
Pole-mounted metering outfit Dec. 9.*126
Production line methods applied to conversion of three-wire meters to two-wire. E. L. Hoefer, July 8..... *78

(E) Editorial. * Illustrated. (N) News.

Start-stop control for gang-tested meters. A. B. Craig, July 22.....*134
Stroboscopic principle for watthour meter calibration. E. E. Stevens, Oct. 14 ..... *94
Template gives cable tension. Archie Benjamin, Sept. 30..... *95
Tong-type ammeter for use on hot line July 8 ..... *100
Utilities may now buy more watthour meters (N) Oct. 14..... 110
WPB releases additional meters (N) July 8 93
Watthour-meter—modern vs. old. A. B. Craig, July 22,* 75; correction Sept. 2. 106
Weather-ometer reproduces elements Sept. 30 ..... *94
Wisconsin Electric Power uses testers report as basis of meter record Aug. 19 ..... *114
tropolitan Edison (N) Aug. 12, 9; (N) Dec. 9 116
xico—Ixtapantongo project starts to operate (N) July 29..... 5
rofilm used by Connecticut Light & Power to preserve records (N) Aug. 19 ..... *110
ssissippi Power & Light (N) Sept. 9.... 10
ssissippi River Flood Control Association opposes new "TVA'S" (N) Oct. 21 9
ssissippi River Power to be absorbed by Union Electric of Mo. (N) Aug. 19 104
ssouri Edison merger stopped (N) Nov. 11 109
ntana-Dakota Utilities (N) Aug. 12.... 8
ntana Power (N) Aug. 19..... 108

otors:
Field troubles on synchronous machines Sept. 16..... *112
How to adjust speed of small series motor Oct. 14..... *142
How to select a synchronous motor. K. M. Patterson, Oct. 28..... 118
Press designed to mark motors Aug. 5 ..... *105
Simply protected motor-driven exciters. J. K. Ostrander, Oct. 28.... 106
Starter in second position cuts peak current Sept. 2..... *89
Sump-pump motor made explosion-proof. W. P. Smith, Sept. 2..... *94
WPB requires commercial type motor reports quarterly (N) Aug. 12..... 7
ountain States Power (N) July 8, 97; (N) Sept. 16..... 94

unicipal ownership:
Arizona Supreme Court rules on municipal ownership (N) Dec. 30..... 6
Canton closes own plant to buy from Miss. power (N) Sept. 2..... 86
Citizens buy last private power utility in Nebraska (N) Dec. 23..... 81
Ft. Wayne voters defeat project (N) Nov. 11, 108; (N) Nov. 18..... 10
Jacksonville, Fla. power failure caused by old wiring (N) Aug. 12..... 9
Jacksonville gets power plant to relieve shortages (N) Sept. 23..... 15
Jacksonville won't buy Illinois-Iowa property (N) Aug. 12, 6; (N) Aug. 26 7
Louisville and Covington consider purchase of plants (N) Sept. 9..... 6
Louisville Gas & Electric to be bought by city (N) July 1, 4; July 8..... 96
Palatka, Fla. votes against city plant (N) Oct. 7..... 8
Spokane to vote on franchise renewal (N) Aug. 12..... 5
Springfield, Mo. offers to buy utility (N) July 8..... 94
Springfield Gas & Electric purchase to be voted upon (N) Dec. 23..... 84
Three cities offer to purchase local utility companies (N) Oct. 14..... 113

N

arragansett Electric (N) Sept. 16..... 96
ashville Electric (N) Dec. 30..... 10
ational Association of R. R. & Utilities Commissioners Omaha conference (N) Nov. 25..... 86
National Electrical Code:
Branch circuit minimum size (Ed) Sept. 16 89
Committee named to study house wiring (N) July 22..... 86
National Electrical Manufacturers Assn.:
Convention (N) Nov. 4..... *5
Offers mailing material to utilities (N) July 29..... 7
National Electrical Retailers' Association (N) July 15..... *10
National Electronics Conference—first forum (N) Oct. 14..... 111
National Rivers and Harbors Congress (N) Aug. 5 100
National Rural Electric Cooperation Assn. meeting (N) Sept. 2..... 82
Natural gas—FPC about to start natural gas investigation. R. N. Larkin. Dec. 23 80
Hope Natural Gas Co.'s new rates approved (N) July 1..... 4
Nebraska Power (N) Nov. 18, 0; citizens buy utility (N) Dec. 23..... 81
Networks—Puget Sound installs overhead primary network. M. T. Crawford, Oct. 14 ..... *90
New England System Operators Club meeting (N) July 15..... *6
New Jersey Council of Electrical Leagues at Spring Lake—Postwar market plan (N) July 29..... 6
New Mexico Indians free of state electrical board (N) Nov. 4..... 10
New York Power & Light (N) July 15.... 10
New York & Queens Electric Light & Power (N) Sept. 23..... 8
New York State Electric & Gas (N) July 15, 10; (N) Dec. 2..... 8
Niagara Falls Power (N) Sept. 2..... 83
Niagara Hudson Power (N) Oct. 7..... 6
Northern Counties Utility to acquire Red River Lumber Co. (N) Nov. 4..... 10
Northern Indiana Public Service buys LaPorte Gas & Electric (N) Dec. 23 87
Northern States Power (N) Nov. 25..... 36
Northwest Electric Light & Power meeting (N) Oct. 21..... *9
Northwestern Electric (N) July 15, 8; (N) Aug. 12, 9; (N) Sept. 23..... 10
Nova Scotia rules on rates (N) July 8.... 96

O

Office of Price Administration—Pricing civilian goods (N) Aug. 26..... 3
Office of War Utilities:
Generating facilities may be expanded (N) Aug. 26..... 7
Marquis named director (N) Dec. 30.. 7
X-day program. R. N. Larkin, Sept. 16 90
Ohio Edison (N) July 8, 95; (N) Oct. 21.. 10
Ohio Midland Light & Power sale case (N) Oct. 7..... 5
Ohio Public Service (N) July 1..... 9
Ohio River Power (N) Nov. 18..... 4
Orders, records, location in a jiffy. Norcross & Roberts, July 22..... *150
Oregon Gas & Electric (N) Sept. 30 87
Ozark Utilities (N) Aug. 12..... 6
Ozonator discharge study Aug. 5..... *120

P

Pacific Coast Electrical Assn. meeting (N) Nov. 18..... *7
Pacific Gas & Electric (N) July 15, 8; (N) July 22, 90; (N) Aug. 26, 8; (N) Sept. 2, 86; (N) Dec. 16, 8; (N) Dec. 16 10
Denies being North American subsidiary (N) Dec. 9..... 116
Distribution suit (N) Oct. 7..... 10
Eases rural lines rules (N) Oct. 7..... 8
Will buy 2 small systems (N) Oct. 21.. 8
Pacific Power & Light (N) July 15, 8; (N) Sept. 23, 10; (N) Nov. 4, 9; (N) Nov. 11..... 110
Voted franchise (N) July 22..... 85
Painting—conductivity of paint spray (Ed) Sept. 16 88
Pennsylvania Electric Assn.:
Communications meeting (N) Nov. 25 88
Meetings (N) Sept. 23, *9; (N) Oct. 28, 99; (N) Dec. 23..... 86
Transmission and distribution committee meeting (N) Nov. 4..... 8
Philadelphia Electric (N) Oct. 21..... 6
Ordered to adjust accounts (N) July 1 9

Plastics:
Code for plastics by SPI (N) Nov. 18.. 10
Fluorescent fixtures made of colored plastic Sept. 30..... *118
Heated thermoplastic drawable like steel. Dr. E. R. Perry, Dec. 9..... *124
Plastic chemistry in the electrical field. Goggin & Boyer, Dec. 9..... *100
Polyethylene plastic production revealed (N) July 29..... 10

Poles:
Bridle guy keeps poles from bowing Sept. 16 ..... *104
Long standing poles are treated to preserve Nov. 25..... *114
Oblique pole strips more readily seen. W. H. Meuron, Aug. 19..... *111
Philadelphia limits poles near airport (N) Dec. 9..... 114
Repairing top heart rot of standing poles. B. J. Barmack. Dec. 23..... *77
Rig for preparing pentachlorphenol for pole preservation. E. A. Stanger, Dec. 9 ..... *119
Rod finds pole depth Aug. 5..... *105
Sand barrel helps set poles in swamp Sept. 2 ..... *104
Shave, spray standing poles to combat shell rot. L. K. Kingston, Sept. 2 ..... *63
Shortage of transformers and poles bars new line construction (N) July 22..... 85
Stock of poles cut by manpower (N) Dec. 30 8
Streamlining distribution poles. Earl Baughn, Dec. 9..... *97
Stress calculations for pole line structures. C. G. Erickson, pt. 3, July 8, *106; pt. 4, Sept. 16, *108; pt. 5, Sept. 30, *102; pt. 6, Oct. 14.....*124
Tall poles raised by winch cable. M. L. Monson. Dec. 23..... *98
White laths protect creosoted poles Nov. 25 ..... *96
Winch test on 69 poles confirms inspections Aug. 5..... 124
Portland Electric Power (N) Nov. 18.... 8
Portland General Electric (N) July 15, 8; (N) Sept. 23..... 10
Will dredge Lake Roslyn (N) Nov. 18 7

Post-war planning:
Agricultural Department reveals 5-year post-war rural electrification plan (N) Nov. 4..... 3
A.S.M.E. discuss power plans for post-war Dec. 9..... 98
British plan post-war domestic electrification (N) July 29..... 5
Nashville's post-war plan (N) Dec. 30 10
New York State plans post-war projects (N) Nov. 11..... 109
Opinion vs. knowledge as post-war guide (Ed) Oct. 28..... 95
Philadelphia Electric reports on its post-war load survey July 8, 120; Aug. 19 138
Plotting the course for post-war sales. S. R. Finley, Sept. 2..... 110
Post-war "miracle" home greatly over-sold Aug. 5..... 130
Post-war surplus of electric plants Oct. 28 82
Problems of the engineer and operators after the war. C. B. McManus, Nov. 11 84
Public Service Co. of Indiana announces post-war dealer cooperation program Sept. 30..... 116
When war controls are removed (Ed) Sept. 16 67
Potomac Electric Power (N) Aug. 19, 104; (N) Sept. 16..... 97
Power exposition in New York City (N) Dec. 2 9

Power sales:
No comfortable sales program after the war (Ed) Sept. 30..... 78
Production method analysis effective in solution of customer's problems Aug. 19 138
Wisconsin Commission attacks own power sales plan (N) Aug. 12..... 7

Power supply:
Brookings Institution suggests allies keep hold on Axis electric power (N) Sept. 16..... 93
Generating facilities may be expanded, OWU rules (N) Aug. 26..... 7
Navy horse power exceeds land generating stations (N) Aug. 26..... 6
Southwest drought brings added power demands (N) July 22..... 84
U. S. Chamber of Commerce urges policy on federal electricity (N) July 15 6
Who will get surplus war plant power capacity? R. N. Larkin, Oct. 28.. 96
Priorities—Applications not needed for some transformers (N) Aug. 26..... 10

Public relations:
Dayton Power & Light tells employees how they serve in war Aug. 5.. 137
Employees present skits to instruct associates Sept. 16..... 124
The job belongs to all (Ed) Sept. 30.. 61
Live demonstration develops good will between local utility and local industry. K. L. Ede, Sept. 30..... 118
Tampa Electric helps can food for G.I. Christmas Dec. 9..... *146
Zoning service calls cut mileage for service work. L. H. Kistler, Sept. 16 124
Public Service Co. of Indiana (N) Nov. 11 110
Public Service Co. of New Hampshire to sell gas properties (N) Oct. 28.... 100
Public Service Co. of Oklahoma (N) Dec. 16 9
Public Service Electric & Gas (N) July 22. 86

Public utilities:
Future of private depends on 'common man'. Dec. 23..... 83
Republican platform and the utility industry (Ed) July 8..... 88
Why private operation? (Ed) Dec. 9.. 91

Public Utility Districts:
Clarke County District brings suit against three Northwest utilities (N) Dec. 23..... 85
Cost of kilowatt hours at PUD rates and at utility rates (chart) Aug. 12 8
Kitsap PUD granted lease (N) July.. 86
New Lincoln PUD formed in Oregon (N) July 15..... 10
Northwestern Electric, Pacific Power & Light and Portland General Electric holdings to go to PUD (N) July 15 8
Oregon State Supreme Court rules to second vote on PUD bonds (N) July 8 97
Puget Sound Power & Light property to be taken by PUD (N) July 22.... 90
Sacramento wins move to take over P. G. & E. (N) Dec. 16..... 8

(E) Editorial * Illustrated. (N) News.

Washington Gas Light rate reduction order nullified by judge (N) July 1 10
Washington State public ownership referendum defeated by vote (N) Nov. 11 107
Washington State PUD's can't get rates (N) Aug. 5 102
Washington State public utility districts opposed by labor (N) Oct. 28. 100
Pueblo Gas & Fuel (N) Dec. 9 118
Puerto Rico—Return of properties to owners (Ed) July 8 88
Puget Sound Power & Light property to be taken by PUD (N) July 22 90

R

Radio:
Aerial for radio cars and trucks Nov. 25 ..... *96
Civilian radio production awaits defeat of Germany (N) Aug. 26 8
Emergency radio channels for utilities. H. L. Davis, Jr., Oct. 28 89
Fifty-one radio channels requested by utilities (N) Nov. 4 9
Union Electric installs frequency modulation radio on trouble cars (N) Nov. 25 87

Radio communication:
Radiophone bridges 30-mile telephone gap Sept. 2 ..... *88
"Walkie-talkie" proves utility value. W. L. Campbell, Sept. 30 ..... *93
Rail power trains for war theaters July 22 ..... *68

Rates:
All-electric rate as a key to the residential goal (Ed) Dec. 9 109
Arizona would use extra profits to reduce rates (N) Oct. 28 102
Arkansas co-ops get low rates (N) Oct. 7, 9; (N) Oct. 21 10
Arkansas Power & Light rate case (N) Aug. 19, 110; (N) Sept. 9, 9; Sept. 16 95
Arkansas power rate base established (N) July 8 95
Arkansas Power & Light rate reduction approved (N) Dec. 16 9
California Commission poised to cut rates (N) July 8 91
California utilities favor rates based on merits (N) Oct. 7 9
Commissioners again refuse depreciation recommendations (Ed) Nov. 25 83
Connecticut Power energy sale to Torrington Electric Light not subject to FPC (N) Oct. 28 101
Connecticut Power rates to Torrington Electric Light, a conflict of federal with state authority (Ed) Sept. 30, 79; (N) 84
Consumers Power will obey rate-cutting order (N) Dec. 9 112
Cost of kilowatt hours at PUD rates and at utility rates (chart) Aug. 12. 8
Detroit Edison rate case (N) Sept. 9, 5; (N) Sept. 16 95
East Palestine, Ohio, municipal plant votes December power tree (N) Dec. 9 114
FPC rate setting theory upheld by Supreme Court (N) Nov. 18 6
Kentucky Utilities power users received "coal clause" cuts (N) Aug. 19. 106
Los Angeles wants to sell wholesale to forestall small plants in apartments (N) Oct. 7 9
Michigan Court ruling on rates interpreted (N) July 15 5
More excess profits rate investigations (Ed) July 8 89
Municipal rates that provide funds for other purposes (Ed) Oct. 14 106
"Original cost" eliminated as rate base in Arkansas (N) Aug. 5 97
Potomac Electric Power rate decision to be appealed (N) Aug. 19, 104; (N) Aug. 26 9
Potomac Electric Power rate reconsideration (N) Sept. 2, 82; (N) Sept. 16, 92; (N) Oct. 102
Potomac Electric Power to reduce rates (N) July 29 3
Rate revision saves U. S. 13 millions on power bill (N) July 15 5
Safe Harbor case hearing (N) Dec. 2. 10
Seattle City Light petitioned by Navy to cut rates (N) Dec. 2 6
Utah Power & Light accepts new low rates (N) Oct. 28, 102; (N) Dec. 2. 9
Virginia towns lose suit against Old Dominion Co. (N) Oct. 21 10
Washington, D. C. hearing on rates (N) Aug. 5 99
Wisconsin "10 for 1" plan ruling appealed by Milwaukee (N) Nov. 4, 8; (N) Nov. 25 86
Reactors—"Rainy day" reactors for rural lines. R. W. McEver, Nov. 25 ..... *93

Reconversion:
European war demands put end to reconversion (N) Dec. 16 5
How reconversion policy might be interpreted (Ed) July 22 80
Nelson announces limited reconversion program (N) July 1 7
Power salesman and reconversion (Ed) Sept. 2 76
War production lag curbs reconversion (N) Nov. 25 89
WPB reconversion plan moves forward (N) Sept. 9 9

Rectifiers:
Paralleling rectifiers and converters. J. B. Pitman, July 8 159
Rectifier substation equipment supplies newspaper plant with direct current. B. J. Foley, Nov. 25 ..... *77

Refrigeration:
Heat pump literature—abstracts Sept. 30 74
Locker plants will sell home freezers Aug. 19 142

Regulation:
Connecticut Commission defends state regulation (N) Dec. 23 85
Indiana commissioner charges FPC interference (N) July 22 88
Michigan Commission may order more "profits" rebates (N) Sept. 30 82
Sherman Act provisions govern electric utilities (N) Sept. 9 5

Relays:
Air-cooled type transformers controlled by relay July 8 116
Automatic throwover without oil switches. L. M. Robertson, Aug. 5 ..... *108
Compensators for distance relaying. J. L. Blackburn, pt. 1, July 22, *146; pt. 2, Aug. 19, *112; pt. 3, Sept. 16 112
Differential relay protection for generator transformer unit. A. H. Burkhalter, Aug. 5 ..... *87
Electronic relay sorts tiny contacts Sept. 16 ..... *118
Field test kit for a.c. network relays. W. B. Rice, Sept. 16 ..... *100
Field troubles on synchronous machines Sept. 16 ..... *112
How to improvise a phase-sequencer. A. R. Constant, Sept. 2 ..... *87
Slide rule used for relay setting Aug. 5 ..... *120
System test checks relay operations. Interstate Power. Hummel & Chambers, Sept. 30 ..... *96
Research—Utah State Agricultural College seeks funds for transmission research (N) Aug. 12 6
Resuscitation by seesaw rocking Sept. 2.. 75
Rivers and Harbors Bill dies (N) Dec. 23 84
Rochester Gas & Electric (N) July 1 8
Rockland Light & Power (N) Sept. 30.... 82
Rocky Mountain Electrical League meeting (N) Oct. 21 ..... *6

Rural electrification:
Advertisements tell history of rural electrification Sept. 2 ..... *118
Agricultural Department reveals 5-year post-war rural electrification plan (N) Nov. 4 3
Alabama co-op buys Alabama Water Service (N) Sept. 16 94
Arkansas co-ops get low rates (N) Oct. 7, 9; Oct. 21 10
Arkansas Power & Light to construct rural line (N) Oct. 28, 100; (N) Nov. 11 112
Arkansas co-op will close plant and buy current (N) Nov. 11 111
Ark-La co-op ruled public utility (N) Dec. 2 5
Ark-La co-op denies being public utility subject to Department of Public Utilities (N) Aug. 12, 10; (N) Sept. 30 84
California prohibits Oregon cooperative (N) Nov. 4 9
Cleveland & Lincoln co-op to buy power (N) Dec. 30 9
Connecticut utilities plan 100 percent rural service Oct. 14 102
Coordinating rural extensions through mass production (Ed) Dec. 9 108
Dairyland co-op will build diesel plant (N) Dec. 30 6
Days of labor saved by electricity Sept. 16 120
Distribution for the coming rural load. A. E. Knowlton, Sept. 16 75
Foothill Electric coop fights to bar Pacific G&E extension (N) Aug. 26 8
Foothill Electric Assn. accepts P. G. & E. offer to build line (N) Dec. 16.. 10
Fuses and reclosers on rural lines Sept. 2 ..... *87
Illinois Commission rules on cooperatives (N) Oct. 21 4
Illinois co-ops agree to fight I.C.C. control (N) Nov. 11 107
Illinois rules WPB cannot allot lines (N) Oct. 21 8
Illinois rural lines approved (N) July 29, 9; (N) Oct. 21, 8; (N) Nov. 4.. 6
Kentucky co-op to extend lines (N) Oct. 14 114
Kentucky Utilities rural plan opposed by co-ops (N) Dec. 9 116
New Mexico co-ops to form state association (N) Aug. 19 110
New York State extensions await essential material (N) Aug. 19..... 104
Ohio farmer is figuring the profit due to savings from electrified farm. Dec. 23 118
Ohio-Midland Light & Power sale case (N) Oct. 7 5
Orders, records, location—in a jiffy. Norcross & Roberts, July 22 ..... *150
Pacific Gas & Electric eases rural lines rules (N) Oct. 7 8
Petit Jean Electric Cooperative wants territory granted A. P. & L. (N) Dec. 9, 117; (N) Dec. 30 4
"Rainy day" reactors for rural lines. R. W. McEver, Nov. 25 ..... *93
Record expansion of rural lines in post-war (Ed) Sept. 16 88
Redwood Electric Co-op fights purchase by P. G. & E. (N) July 15... 8
Rural customers order lamp bulbs by mail Aug. 5 ..... *130
Rural Telephone Administration agency proposed (N) Dec. 9 112
Rural Telephone Administration bill introduced (N) Dec. 16 10
Rural telephone survey underway among co-ops (N) Dec. 30 5
Tennessee assessments protested by coops (N) Sept. 9 8
Tennessee cuts levies on electric cooperatives (N) Oct. 21 4
Today's thinking on tomorrow's load building. F. R. Innes, Nov. 11....87-98
Turkey brooder, Sept. 2 ..... *110
Washington farms electrified (N) Dec. 30 15
Washington State voters to decide public-private ownership (N) Oct. 14 109

Rural Electrification Administration:
Administrator speaks to Illinois Cooperatives (N) Aug. 26 5
Appropriation bill (N) July 8 98
Appropriation passed by Congress (N) Dec. 23 84
Allotments since 1935 (N) July 87
Inquiry a fiasco. R. N. Larkin, July 8 90
Investigation report competes with comics. R. N. Larkin, Nov. 11.... 106
Mountain States Power enjoins work on lines (N) Sept. 16 94
North Carolina REA cannot buy from utility it undersells (N) Sept. 23.... 5
Oregon extensions to be made (N) Dec. 30 9
Rules for the rural electrification race (Ed) Sept. 30 78
Senate group asserts that REA head is without power (N) July 1 6
Slattery resigns (N) Dec. 16 3
Surplus war property bill approved (N) Sept. 23 5
Texas gets largest allotment on need basis (N) Nov. 11 110
Three-man board as head discussed (N) July 8 91
Utility place in rural electrification challenged. R. N. Larkin, Sept. 30.. 80

Russia:
Dnieprostroi Dam to be rebuilt (N) Sept. 16 94
Generator contract for replacement equipment at Dnieprostroi Dam (N) Oct. 21 6
Power plants for Russia. R. N. Larkin, Aug. 19 102
Steam plant designed for Russia under lend-lease. Louis Elliott. Dec. 23... *69

S

Safety:
Accident rate rises with heat, humidity (N) Oct. 14 110
Cold cathode lighting safety measures Nov. 25 95
Philadelphia limits poles near airports (N) Dec. 9 114
Salt River Valley Water Users' Association (N) Aug. 26, 8; (N) Oct. 21.. 8
Salvage:
Forge hammer made from pneumatic tamper Dec. 9 ..... *124
Old crossarm braces salvaged, Dec. 9 ..... *126
San Diego Gas & Electric will not sell appliances (N) Dec. 30 9
Scott, Charles Felton (Ed) Dec. 23..... 79

Securities and Exchange Commission:
Purcell re-elected (N) July 15..... 7
Supreme Court will rule on Act (N) Oct. 7 3
Silicones' effect on apparatus design (Ed) July 22 81
Sioux City Gas Electric (N) Oct. 28..... 99
Slide rule for transmission line calculations. E. W. Greenfield, Aug. 19. *116
Slide rule, rotating, solves vector problems. Lt. Jerry Allinger, Oct. 14..*118
South Carolina Electric & Gas sells gas lines (N) Oct. 28 98
South Carolina Power (N) Sept. 2, 84; (N) Nov. 4 4
Pension plan approved (N) Aug. 12.. 7

(E) Editorial. * Illustrated. (N) News.

theastren Electric Exchange:
Engineering & Operations Section meeting (N) Sept. 30..... 83
Appoints section leaders (N) July 22. 88
Sales section meeting (N) Nov. 18.... *5
thern California Edison (N) Aug. 5.. 98
thern Indiana Gas & Electric (N) Nov. 11 110
thern Research Institute set-up (N) July 22 90
thwestern Public Service Co. (N) Nov. 18 8
ingfield (Mo.) Gas & Electric (N) July 8 94
ndardization — A.S.A. approved 157 standards in 1944 (N) Dec. 16..... 9
A.S.T.M. to publish book of standards (N) Dec. 21..... 15
Determinations of electric units reviewed, Dec. 23 76
istics—Industrial electricity requirements 1939-1944 (table) July 8..... 73

eam stations and developments:
Appalachian Electric Power arranges pump for pumping out flood (N) Nov. 11 ..... *115
Cleaner for air preheater. Dec. 23... *110
Fisk Station adds another 147,000-kw turbo-generator Sept. 30..... *62
Harvey Couch plant, Arkansas, semi-outdoor plant simple, compact, convenient. Louis Elliott, Nov. 25.... *70
Hauto, Pa. superposition uses pulverized anthracite. S. C. Reque, Aug. 19 ..... *84
High pressures—high temperatures credit (Ed) Aug. 19..... 100
Huntley Station, Buffalo Niagara—Deaerator baffles prevent loss of pump suction. R. P. Moore, Oct. 14. *96
Lists of post-war surplus electric plants Oct. 28, 82; correction Nov. 11 107
Mystic switching station, Boston Edison, design. W. W. Edson, pt. 1, Nov. 11, *80; pt. 2, Nov. 25..... *74
OWU authorities 23 generating units (N) Nov. 11..... 111
Oils and lubrication of steam turbines. A. F. Brewer, pt. 1, Sept. 30, 93; pt. 2, Oct. 14, 138; M. L. Langworthy, pt. 3, Oct. 28, 126; A. F. Brewer, pt. 4, Nov. 11, *134; R. J. Ronan, pt. 5, Nov. 25, 112; pt. 6, J. A. Triska, Dec. 9, 140; pt. 7, Dec. 23, ... 110
Operating efficiency for steam plants Aug. 5 112
Plastic insulating tube in cooling water lines of turbine controls acidity of lubricating oil. E. J. Drewelow, Aug. 19..... *111
Rail power trains for war theaters July 22 ..... *68
Russian steam plant designed under lend-lease. Louis Elliott. Dec. 23... *69
Stack soot removal Aug. 5..... 106
Steam turbine order revoked (N) Sept. 2 83
Turbo-generator tripped by cap screw. G. I. Smith. Dec. 23..... 98

ubstations:
Designing substation for urban load reliability Cincinnati. M. S. Schneider, Sept. 16..... *68
Lock for substation gate. H. A. Dilberger, Nov. 25..... *112
Willys-Overland Motors novel substation at Toledo Nov. 11..... *83
upercharger use in post-war period (N) July 29 9
urplus War Property:
Revised bill approved (N) Sept. 9, 3; (N) Sept. 23..... 5
War surpluses available to utilities (N) July 22..... 87
U-1 amended to ease war surplus control (N) Nov. 18..... 8
weden—Power trend revealed by report Oct. 14 97

witches and switching:
Automatic throwover without oil switches. L. M. Robertson, Aug. 5 ..... *108
Fused disconnects protect regulator Oct. 28 ..... *107
Motor operated air switches save oil circuit breakers. L. M. Robertson, July 22 ..... *129
Mystic switching station, Boston Edison, design. W. W. Edson, pt. 1, Nov. 11, *86; pt. 2, Nov. 25..... *74
Protecting switches from sulphuric acid Oct. 14..... 133
Switch-blade jumper Aug. 5..... *112

T

ampa Electric (N) Oct. 21..... 10

axes:
Arizona Edison wins state tax judgment (N) Aug. 19..... 106
Arkansas water company ruled taxable (N) Nov. 11..... 110
California acts to tax federal holdings (N) July 1..... 10
California Commission investigates utilities on war tax charge (N) Aug. 19 108
Chattanooga Power Board to raise annual payments in place of taxes (N) Aug. 19..... 104
Columbus & Southern Ohio Electric sued to determine validity of tax (N) Dec. 2..... 112
Detroit Edison denied rehearing by Court (N) July 8..... 96
Imposing taxes on municipal ownership electric bills (Ed) Aug. 19.... 100
Louisville Gas & Electric tax suit (N) Oct. 28 102
Louisville sues Kentucky to change utility levy (N) Oct. 28..... 102
Missouri utilities may be taxed at different rates (N) Oct. 21..... 5
Private utility tax bill increased in 1944 (N) Aug. 26..... 9
Virginia Commission tax bill (N) Sept. 9 6
Virginia power taxes up (N) Dec. 23 85
War-time earnings, peace-time rates (Ed) Sept. 2..... 59
West Palm Beach votes approval of utility tax (N) Aug. 12, 7; (N) Sept. 16 95
Where tax discrimination lies (Ed) Nov. 25 82
Wisconsin Electric Power loses income tax case (N) Dec. 30..... 5
Telephone—Frequency modulation carrier telephone applied on 230-kv line. E. W. Kenefake. Dec. 23..... *74
Rural Telephone Administration agency proposed (N) Dec. 9..... 112

Testing and tests:
Board for long tests of demand meters. A. J. Holthaus, Nov. 25..... *73
Cable field testing and fault location. Fenn & Gray, Aug. 19..... *97
Chamber for testing water-tight joints. W. F. Bonwitt, July 22..... *142
Concrete test forms for rubber moods. Dec. *138
Field test kit for a.c. network relays. W. B. Rice, Sept. 16..... *100
Filament transformer for variable voltage Nov. 11..... *120
Gang-tests maximum demand registers. Sam Silverman, Sept. 16..... *100
Galvanic corrosiveness of soil found by simple pH test. Phelps & Kahn, Aug. 19 ..... *93
Hatrack for testing leads, Nov. 25.... *96
Lineman's rubber blankets tested on special table. T. W. Buttner, Oct. 14 ..... *126
Portable cable testing outfit Aug. 19.. *113
Predetermination of sheath vibration failures Nov. 11..... *122
Stroboscopic principle for watthour meter calibration. E. E. Stevens, Oct. 14 ..... *94
Tide Water Power (N) Nov. 18..... 15
Time and motion study—Meter testing made easier by studying motions. Wallace Harrison, Sept. 2..... *65
Tires—electric utilities get high priority for truck tires (N) Aug. 12..... 5
Toledo Edison (N) Nov. 25..... 90
Trailer designed for desert construction work (N) July 1..... *5
Training:
Courses for vocationalists. A. Naeter, July 8 159
Stability demonstration makes better operators. Dec. 23 ..... *92
Synchronizing practice panel Oct. 14.*140

Transformers:
Air-cooled type transformers controlled by relay July 8..... 116
Applications not needed for some transformers (N) Aug. 26..... 10
Bauch transformer damps cable faults. Nelson & Muller, Nov. 11..... *86
Characteristic curves for bushing current transformers. S. D. Moreton, Sept. 30 ..... *100
Chart yields final coil rise in a transformer. Keath & Godin, July 8 108
Chile—transformer transported by trailer. Dec. 23 ..... *91
Differential protection of generator transformer unit. A. H. Burkhalter, Aug. 5 ..... *87
Distribution transformer as an autotransformer. M. L. Monson, Dec. 9 ..... *138
Distribution transformer lightning protection data (table) July 22 ... 136
Drying a transformer by connecting three for desired voltage. Dec. 23.. *92
44-kv transformers as 66-kv standby Dec. 9 ..... *124
How to clean oil drums. M. A. Brown, Nov. 11 ..... *126
How to construct current and potential transformer cabinets, Oct. 28.. *112
Irrigation-power transformer banks, Sept. 30 ..... *112
Lightning and transformers. E. W. Whitmer, Aug. 5..... 162
Load limits determined for distribution transformers. Perry Shelley, Oct. 28 ..... *86
Load unbalance on banked transformers. W. C. Noddings, Aug. 19..... 130
Low-cost power bank structure, Sept. 16 ..... *99
Mine drain pipe thawed electrically. M. M. Devorris, Nov. 11..... *126
Nomogram determines hot spot rise in transformer for short-time overloads. Keath & Godin, Aug. 5..... 118
Oil floods prevented by low concrete wall. Dec. 30 ..... *65
OWU makes additional transformers available (N) Aug. 5, 98; (N) Nov. 4 8
Shortage of transformers and poles bars new line construction (N) July 22 85
Steam cleaning cuts transformer repair cost. M. A. Brown, Sept. 2..... *94
Stocks cut, OWU reports (N) July 8.. 96
Transformer bank rests on T-frame Sept. 2 90
Tripping mechanism replaces cutout fuse July 22..... *127
Unusual troubles with high-voltage transformers. Harper & Coxe, Dec. 9 ..... *104
Voltage regulator helped out by transformer Nov. 11..... *120

Transmission:
Bridle guy keeps poles from bowing Sept. 16 ..... *104
Chart calculates flexible dead ends Aug. 19 ..... *128
Chart determines proper guy sizes July 8 110
Code requirements for minimum wire spacing. Philip Morrill, Nov. 25....*106
Conductor thermometer for 132 kv lines Nov. 11..... *122
Counterpoise grounding protects high voltage lines. A. S. Runciman, Nov. 25 ..... *66
Double string stops conductor side swing. Paul Naney, Nov. 25..... *98
Double transmission capacity by use of voltage regulators. J. T. Logan, Sept. 16 ..... *83
Flashover record charts of transmission line troubles. J. A. Rawls, Oct. 28 ..... *80
How to change 30 ft. crossarms on "hot" 110-kv h-frame lines. C. S. Taylor, Aug. 5..... *114
How to determine allowable vertical loading on crossarms. Philip Morrill. Dec. 23..... 109
How to determine span and dead-end guys. J. J. Graves, Nov. 11..... *132
Hurricane hits Southeastern coast (N) Oct. 28 101
Hurricane of Sept. 14 makes repair problems difficult (N) Sept. 23.... *3
Ice-melting practice on 132-kv transmission lines. H. A. Cornelius, Oct. 14 ..... *98
Kill, transfer, then thaw 13.2-kv line. S. W. Davis, Dec. 9..... 121
Method of determining shortest distance between two lines. E. M. Wright, Nov. 11..... *130
Nomogram yields sag-tension relations. Detroit Edison, Aug. 5..... 116
Parallel hot-frame for live line work. Sheriton Burr, Sept. 16..... *71
Plugging bolt holes in wood structures July 8..... 101
Precoiled bethanized dead-end wire tool Oct. 14..... *117
Pros and cons of fast reclosure of transmission. H. R. Vaughan, Dec. 23 ..... *66
Protector tubes minimize outages. J. A. Rawls, Nov. 11..... 102
Rock-filled palisade holds poles upright Oct. 14 ..... *119
Shasta power line cuts time required for armor-banding conductors and "clipping-in" Aug. 19..... *126
Simplified pole top fuse installation Oct. 28 ..... *88
69-kv line without crossarms—costs cut Sept. 30..... *66
Stability demonstration makes better operators. Dec. 23..... *92
Steel insulator pins adapted for wooden arms. Dec. 23..... *113
Streamlining distribution poles. Earl Baughn, Dec. 9..... *97
Stress calculations for pole line structures. C. G. Erickson, pt. 3, July 8, *106; pt. 4, Sept. 16, *108; pt. 5, Sept. 30, *102; pt. 6, Oct. 14..... *124
Stub poles at top to hold ground wire July 22 ..... *130
Template gives cable tension. Archie Benjamin. Sept. 30..... *95
Tie losses figured for voltage upping July 8 100
Towers raised by gin poles July 8.... *102
Truck-mounted ground rod installs rod by pulling Aug. 5..... *93
Wire-stringing brake. Oct. 28..... *107
Wood-pole line protection without ground wires. H. K. Borden, Dec. 9 ..... *94
Traveling platform Oct. 14..... *120
Trimetric drawings preparation speeded Oct. 28 ..... *106

Trucks:
Chile—transformer transported by trailer. Dec. 23 ..... *91

(E) Editorial. * Illustrated. (N) News.

Smaller truck usable for pumping manholes Nov. 25 ..... *118
Street lighting fixtures painted with special truck. D. B. Hill, Sept. 16. *99
Tucson Gas, Electric Light & Power (N) Sept. 16, 92; (N) Dec. 30 6
Turbines, gas—Potentialities, limitations of the combustion gas turbine. G. B. Warren, pt. 1, Oct. 28, *83; pt. 2, Nov. 11 ..... *99

U

Underground construction:
Earth ambient temperatures for cable loading limits. G. Hieronymus, Dec. 9 ..... *92
Ground temperatures for cable loading. Archie Benjamin, Nov. 25, *93; correction Dec. 9 143
How to construct underground duct with fiber conduit and concrete Dec. 9 ..... *134
Vault frames welded July 8 ..... *99
Underground construction see also Cables, Ducts and manholes
Union Electric Co. of Illinois absorbs Iowa Union Electric (N) July 29 8
Union Electric of Missouri (N) Nov. 25 .. 86
Buy facilities of Laclede Power & Light (N) Aug. 5 101
To absorb Mississippi River Power (N) Aug. 19 104
United Illuminating (N) Dec. 9 117
United Light & Power case before the Supreme Court (N) Nov. 25 89
Utah Light & Traction to be bought by Utah Power & Light (N) Oct. 28 98
Utah Power & Light (N) Aug. 26 4
Retirement pay approved (N) Dec. 9 .. 115
Suit dismissed (N) Dec. 9 114
Seeks to buy Utah Light & Traction (N) Oct. 28 98

V

Valves prevent contamination of city water, Roanoke, Va., Sept. 16 109
Virginia Electric & Power (N) Aug. 12 .. 10
Voltage regulation:
Benefits of higher voltages on industrial power systems. D. L. Beeman, Sept. 2 ..... *73
Columbus network feeders use compensated regulators. Brown & Marquette, July 8 ..... *72
Double transmission capacity by use of voltage regulators. J. T. Logan, Sept. 16 ..... *85
Electronic stabilizer and regulator July 22 ..... *128
Ideal concept of voltage regulation (Ed) Nov. 11 105
Tie losses figured for voltage upping July 8 100
Time delay stops tool insert breakage. C. M. Boardman ..... Dec. 23 *91
Voltage compensation charts guide generator voltage changes. H. E. Stites, Oct. 28 ..... *78
Voltage regulators (Ed) Aug. 19 101

W

War Production Board: Krug made acting head (N) Aug. 26, 3; now head (N) Oct. 7 6
Washington Water Power (N) Aug. 12, 5; (N) Oct. 14 114
Cost of 250 kw hours (chart) Aug. 12 8
Dismissal of condemnation suit (N) Oct. 7 8
Welding:
Corroded water wheels restored by welding July 22 ..... *142
Design of automatic welding machine control. Porter & Nott, Sept. 30 .. *72
Metals fused end-to-end by flash welding Nov. 25 ..... *122
Resistance welders—how much load? L. W. Clark, Dec. 23 ..... *64
Saving welding rods by capping Sept. 30 112
Solder pot constructed by arc welding Sept. 2 ..... *108
Spot welding operation supported by crane Nov. 11 ..... *116
Vault frames welded July 8 ..... *99
West Coast Power to be purchased by Idaho Power (N) July 8
West Penn (N) Oct. 7 10
Westchester Lighting (N) Sept. 25 8
Western Massachusetts Electric (N) Aug. 19 106
Western States Utilities property to be sold (N) July 1, 7; (N) Aug. 5 100
Westinghouse Electric & Mfg. (N) Oct. 7 .. 8
Wiring:
Pre-form wiring idea wins award (N) Aug. 19 ..... *105
Wisconsin Electric Power (N) July 29 6
Wisconsin Gas & Electric (N) July 29 6
Wisconsin Power & Light (N) Dec. 30 10
Wisconsin Utility sets-up pension plan (N) July 29 10
Wood splitter, electrically driven July 8 .. *126

X

X-rays—Inspecting cable with industrial x-ray Oct. 14 ..... *133

Y

Yonkers Electric Light & Power (N) Sept. 23 8

AUTHOR'S INDEX

AILINGER, LT. JERRY: 24-scale slide rule solves vector problems Oct. 14 ..... *118
Aron, G. M.: The perfect catalog Aug. 19 .. 165
Atwater, D. W. & J. L. Kilpatrick: The next five years July 22 ..... *94
Avila, C. F. & V. S. McFarlin: Determining cable test schedules Sept. 16 .. *85

BARMACK, B. J.: Repairing top heart rot of standing poles, Dec. 23 .... *77
Barr, Arthur C.: Effect of circuit on fluorescent lamp performance Aug. 19 ..... *90
Baughn, Earl: Streamlining distribution poles Dec. 9 ..... *97
Beeler, Joseph J.: Ground rods driven with jackhammer July 22 ..... *129
Beeman, D. L.: Benefits of higher voltages on industrial power systems Sept. 2 ..... *73
Benjamin, Archie: Friction coefficients in cable pulling Nov. 11 ..... *116
Ground temperatures for cable loading Nov. 25 ..... *93
Template gives cable tension Sept. 30 *95
Betz, Lawrence G.: Graphic determination of parallel impedance Oct. 14 .... *119
Blackburn, J. L.: Compensators for distance relaying, pt. 1, July 22, *146; pt. 2, Aug. 19, *112; pt. 3, Sept. 16 112
Boardman, C. M.: Time delay stops tool insert breakage. Dec. 23 ..... *91
Bonwitt, W. F.: Chamber for testing water-tight joints July 22 ..... *142
Bowen, J. B. & J. G. Brown: Sleeveless duct-splice devised for lead-sheath cable Nov. 25 ..... *80
Boyer, R. F. & W. C. Goggin: Plastic chemistry in the electrical field Dec. 9 ..... *100
Bremner, W. C., F. G. Mueller & L. B. Scofield: Live 220-kv line insulators washed to stop leakage Aug. 5 ..... *90
When to wash dirty insulators Aug. 5 ..... *107
Brewer, A. F.: Oils and lubrication of steam turbines, pt. 1, Sept. 30, 93; pt. 2, Oct. 14, 138; pt. 4, Nov. 11 .. 134
Bridges, Roy: Grease trolley buses by fluorescent light. Dec. 23 ..... *114
Brown, M. A.: How to clean oil drums Nov. 11 ..... *126
Resistance heating for quick soldering Oct. 28 ..... *121
Steam cleaning cuts transformer repair cost Sept. 2 ..... *94
Brown, R. A. & F. W. Marquette: Network feeders use compensated regulators July 8 ..... *72
Brown, J. G. & J. B. Bowen: Sleeveless duct-splice devised for lead-sheath cable Nov. 25 ..... *80
Burkhalter, A. H.: Differential protection of generator transformer unit Aug. 5 ..... *87
Burr, Sheriton: Parallel hot-frame for live line work Sept. 16 ..... *71
Burri, J. J.: Method of cutting-over 2,500 volt delta to 4,000 wye, pt. 1, Dec. 9, 121; pt. 2, 2, Dec. 23 92
Buttner, T. W.: Blankets tested on special table Oct. 14 ..... *120

CAMPBELL, W. L.: "Walkie-talkie" proves utility value Sept. 30 ..... *93
Chambers, H. E. & C. A. Hummel: System test checks relay operations Sept. 30 ..... *96
Clark, L. W.: Resistance welders—how much load? Dec. 23 ..... *64
Cole, George L.: Selection of circuit breakers for motor protection, Dec. 23. 100
Constant, A. R.: How to improvise a phase-sequencer Sept. 2 ..... *87
Cornelius, H. A.: Conductor thermometer for 132 kv lines Nov. 11 ..... *122
Ice-melting practice on 132-kv transmission lines Oct. 14 ..... *98
Coxe, E. H. Jr. & J. D. Harper: Unusual troubles with high-voltage transformers Dec. 9 ..... *104
Craig, Arthur B.: Start-stop control for gang-tested meters July 22 ..... *134
The watthour-meter—modern vs. old July 22 ..... *75
Crawford, M. T. Puget Sound installs overhead primary Oct. 14 ..... *90

DAVIS, H. L., Jr.: Emergency radio channels for utilities Oct. 28 89
Davis, Sam W.: Kill, transfer, then thaw 13.2-kv line Dec. 9 121
Derr, W. A.: Single-pole reclosure holds stability and stresses Sept. 30 .... *68
Devorris, M. M.: Mine drain pipe thawed electrically Nov. 11 ..... *126
Dilberger, H. A.: Improved lock for gates Nov. 25 ..... *112
Drake, Francis E. Jr. & G. H. Fiedler: Chance for distribution savings mostly beyond transformer Sept. 30 ..... *70
Drewelow, E. J.: Controls acidity of turbine oil Aug. 19 ..... *111
Duby, C. J.: Power supply for all-electric tin plate production July 8 ..... *74
Dunn, Thomas: Copper bent easily and quickly on horse, Dec. 23 ..... *98
Duryee, L. M.: High-frequency heat aids forging job Nov. 25 ..... *120
Dyer, L. W. & O. S. Jennings: New switch contact answers are problem Oct. 14 ..... *133

EDE, KENNETH L.: Appliances bought for future delivery Sept. 16 126
Live demonstration develops good will Sept. 30 118
Edmonds, E. C.: Compensated compensator Oct. 28 112
Edson, William W.: Mystic switching station design keynotes simplicity, reliability, pt. 1, Nov. 11, *80; pt. 2, Nov. 25 ..... *74
Edwards, L. C. & L. M. Van Meter: Marble-sand blast removes dimout paint Oct. 14 ..... *105
Elliott, Louis: Semi-outdoor plant simple, compact, convenient Nov. 25 ..... *70
Steam plant designed for Russia under lend-lease, Dec. 23 ..... *69
Erickson, Carl G.: Stress calculations for pole line structures, pt. 3, July 8, *106; pt. 4, Sept. 16, *108; pt. 5, Sept. 30, *102; pt. 6, Oct. 14 ..... *124

FENN, W. D. & L. A. Gray: Cable field testing and fault location Aug. 19, *97
Fiedler, George H. & F. E. Drake Jr.: Chance for distribution savings mostly beyond transformer Sept. 30 ..... *70
Finley, S. R.: Plotting the course for post-war sales Sept. 2 110
Foley, R. J.: Rectifiers convert newspaper plant with various gains Nov. 25. *77

GODIN, W. L. J. F. & H. B. Keath: Chart yields final coil rise in a transformer July 8 108
Nomogram determines hot spot rise in transformer for short-time overloads Aug. 5 118
Goggin, W. C. & R. F. Boyer: Plastic chemistry in the electrical field Dec. 9 ..... *100
Graven, J. J.: Extensions solve relocation problem Sept. 30 ..... *98
Graven, J. M.: How to determine span and dead-end guys Nov. 11 ..... *132
Gray, L. A. & W. D. Fenn: Cable field testing and fault location Aug. 19 *97
Greenfield, E. Q.: Universal circuit slide rule Aug. 19 ..... *116
Greene, William M.: What relighting means to public safety July 22 .. 101

HALE, S. A.: A power salesman's views on home load building Nov. 25 .. 138
Hanson, C. F.: Fungus growth on insulation Sept. 2 137

(E) Editorial. * Illustrated. (N) News.

rper, John D. & E. H. Coxe Jr.: Unusual troubles with high-voltage transformers Dec. 9.....*104
rinson, Wallace: Easy meter testing Sept. 2 ..... *65
yford, B. L.: Rectox-operated circuit breakers Nov. 25..... *95
pp, George J.: Insulating varnishes: properties and applications Sept. 2 70
eronymus, T. G.: Earth ambient temperatures for cable loading limits Dec. 9 92
l, A. W.: 5-cycle oil breaker 115 kv and above Aug. 5..... *105
ll, D. B.: Fixture painting truck platform at Boston Sept. 16..... *99
nt, C. M.: Comparison of socket and "A" type meters Aug. 5..... 106
ge, J. Barton: Nomogram calculates condenser discharge time Sept. 2.. 98
efer, E. L.: Convert three-wire meters on miniature assembly line July 8 ..... *78
eller, Richard: Nomograph aids in locating cable faults Dec. 9..... 130
lthaus, A. J.: Board for long tests of demand meters Nov. 25..... *73
mmel, C. A. & H. E. Chambers: System test checks relay operations Sept. 30 ..... *96

NES, FRANK R.: Today's thinking on tomorrow's load building Nov. 11 87-98

ENNINGS, O. S. & L. W. Dyer: New switch contact answers arc problem Oct. 14.....*133
nes, A. B.: Locating trouble on 3-phase ungrounded secondaries. Dec. 23 *62

AHN, FRANK & H. S. Phelps: Galvanic corrosiveness of soil found by simple pH test Aug. 19..... *93
ath, H. B. & W. L. J. F. Godin: Chart yields final coil rise in a transformer July 8..... 108
Nomogram determines hot spot rise in transformer for short-time overloads Aug. 5..... 118
elly, Arthur: Cooperation overcomes frosted lamp ban Oct. 14.....*144
enefake, E. W.: Frequency modulation carrier telephone applied on 230-kv line. Dec. 23..... *74
. Ipatrick, J. L. & D. W. Atwater: The next five years July 22..... *94
ngston, L. H.: Shave, spray standing poles to combat shell rot Sept. 2. *63
ttler, L. H.: Zoning service calls cuts mileage 24 percent Sept. 16..... 124
ewton, A. E.: Distribution for the coming rural load Sept. 16..... 76
Power plans fuel resources dust collection techniques Dec. 9..... 93
olb, F. A.: Duquesne Light appraises commercial cooking load Aug. 5.. *78

LANGWORTHY, M. L.: Oils and lubrication of steam turbines, pt. 3, Oct. 28 126
arkin, R. N.: FPC about to start natural gas investigation. Dec. 23..... 80
Federal power policy taking form. Dec. 9 116
Missouri Valley Authority, more of the same Sept. 2..... 78
No change expected in New Deal power policy (Ed) Nov. 25..... 84
OWU's x-day program Sept. 16..... 90
Power for liberated Europe Oct. 14.. 108
Power plants for Russia Aug. 19..... 102
REA inquiry a fiasco July 8..... 90
REA investigation report competes with comics Nov. 11..... 106
Trouble ahead for high grade coal users July 22..... 82
U-1 procedures simplified Aug. 5..... 96
Utility place in rural electrification challenged Sept. 30..... 80
Who will get surplus war plant power capacity? Oct. 28..... 96
ogan, J. T.: Double transmission capacity by use of voltage regulators Sept. 16 ..... *83
Loomis, R. C.: Fixed boost and capacitor on even terms Nov. 11..... 204
Fixed boost vs. shunt capacitor in distribution system regulation Aug. 19 ..... *88
Lucklesh, Matthew: What relighting means to vision July 22..... *96

MARQUETTE, F. W. & R. A. Brown: Network feeders use compensated regulators July 8..... *72
Marsh, Mrs. B. E.: Omaha customers told order appliances now Nov. 11.... 142
Maryatt, E. F.: Simplicity, reliability, economy designed into Pit 5 plant July 22 ..... *71
Mayo, L. A.: New plan for financing installment sales of appliances Dec. 23 72
McDowell L. G.: Chart for cable temperature attainment factors temperature—time curves Oct. 14....*130
How to determine thermal constants of cable Aug. 19.....*122
Table of resistances of lead cable July 140
Thermal resistance of insulation single-conductor cable Sept. 16.....*110
McEver, R. W.: "Rainy day" reactors for rural lines Nov. 25..... *93
McFarlin, V. S. & C. F. Avila: Determining cable test schedules Sept. 16.. *85
McManus, C. B.: Post-war problem of the engineer and operators Nov. 11.. 84
Merriell, F. C.: Nevada was not snubbed Sept. 16 161
Meuron, W. H.: Oblique pole-strips more readily seen Aug. 19.....*111
Miller, A. A.: Tank develops long oscillograph films Dec. 9.....*120
Mitchell, Don G.: Contract fluorescent lighting maintenance Dec. 9..... 106
Monson, M. L.: Distribution transformer as an autotransformer Dec. 9....*138
Tall poles raised by winch cable. Dec. 23 ..... *98
Moore, R. P.: Deaerator baffles prevent loss of pump suction Oct. 14..... *96
Moreton, S. D.: Characteristic curves for bushing current transformers Sept. 16 .....*100
Morrill, Philip: Code requirements for minimum wire spacing Nov. 25..*106
How to determine allowable vertical loading on crossarms. Dec. 23... 109
Mueller, F. G., W. C. Bremner & L. B. Schofield: Live 220-kv line insulators washed to stop leakage Aug. 5 ..... *90
When to wash dirty insulators Aug. 5 .....*107
Muller, H. N. Jr. & L. M. Nelson: Bauch transformer damps cable faults Nov. 11 ..... *86

NAETER, A.: Training courses for vocationalists July 8..... 159
Naney, Paul: Double string stops conductor side swing Nov. 25..... *98
Nelson, Lee M. & H. N. Muller Jr.: Bauch transformer damps cable faults Nov. 11 ..... *86
Nimmer, F. W.: Method for determining size of guy for a given load July 22 .....*138
Noddings, W. C.: Check meter connections without tracing wires. Dec. 23.. *90
Load unbalance on banked transformers Aug. 19..... 130
Norcross, K. M. & J. E. Roberts: Orders, records, location—in a jiffy July 22 .....*150
Nott, W. M. & N. E. Porter: Design of automatic welding machine control Sept. 30..... *73

OSTRANDER, J. K.: Simply protected motor-drives exciters Oct. 28.... 106

PATTERSON, K. M.: How to select a synchronous motor Oct. 28..... 118
Patterson, William: Liquid in fuse shell Sept. 2 137
Paul, Argale: Numerical tape for wire identification Nov. 11.....*134
Perry, Dr. E. R.: Heated thermoplastic drawable like steel Dec. 9.....*124
Perry, L. L.: Diversified demand of a flat iron Aug. 19..... 140
Peterman, L. C.: Fuses and circuit breakers in industrial plant distribution Sept. 16 ..... *72
Phelps, Howard S. & Frank Kahn: Galvanic corrosiveness of soil found by simple pH test Aug. 19..... *93
Pinkel, C. W.: Bench mounts meters reachably Nov. 11.....*115
Pitman, James B.: Paralleling rectifiers and converters July 8..... 159
Pollock, S. H.: Ground all capacitor terminals—be safe July 8.....*101
Porter, Noel E. & W. M. Nott: Design of automatic welding machine control Sept. 30..... *73
Pyle, Dr. J. J.: Thermal insulator that appears to grow Dec. 9..... 126

RAWLS, J. A.: Keep chart record of transmission line trouble Oct. 28. *80
Protector tubes minimize outages Nov. 11 102
Rebsamen, Lloyd M.: Deep grounds reduce ohmic resistance Nov. 25..... 96
Lightning protection obtained for system Dec. 9.....*138
Reque, S. G.: Haute superposition uses pulverized anthracite Aug. 19.... *84
Rice, W. B.: Field test kit for a.c. network relays Sept. 16.....*100
Roberts, J. E. & K. M. Norcross: Orders, records, location—in a jiffy July 22 .....*150
Robertson, L. M.: Automatic throwover without oil switches Aug. 5.....*108
Motor operated air switches save oil circuit breakers July 22.....*129
Ronan, R. J.: Oils and lubrication of steam turbines, pt. 5, Nov. 25..... 113
Rorden, Harold L.: Wood-pole line protection without ground wires Dec. 9 ..... *94
Runciman, A. S.: Counterpoise grounding protects high voltage lines Nov. 25 ..... *66

SCHLOTTERE, E. L.: Reconditioning of dry and compound bushings July 22 ..... *78
Schneider, M. S.: Substation designed for urban load reliability Sept. 16.... 68
Schofield, L. B., W. C. Bremner & F. G. Mueller: Live 220 kv line insulators washed to stop leakage Aug. 5 ..... *90
When to wash dirty insulators Aug. 5.*107
Self, W. K.: Float cable on steel drums. Dec. 23 ..... *89
Sharp, Howard M.: What relighting means to America July 22..... 99
Shelley, Perry: Load limits determined for distribution transformers Oct. 28. *86
Silverman, Sam: Gang tests maximum demand registers Sept. 16.....*100
Smith, Carl W.: Generator maintenance and repair methods Sept. 2..... *60
Smith, George I.: Turbo-generator tripped by just a cap screw. Dec. 23..... 98
Smith, William P.: Sump-pump motor made explosion-proof Sept. 2..... *94
Stanger, E. A.: Rig for preparing petnachlorphenol Dec. 9.....*119
Three-wire primaries, double loading July 8 .....*112
Steinmetz, H. P. J.: Ten years of better light-better sight July 22..... 92
Stevens, E. E.: No rotating standard in stroboscopic calibration Oct. 14.. *94
Stites, E. E.: Voltage compensation charts guide generator voltage changes Oct. 28 ..... *78

TAYLOR, C. S.: How to change 30-ft. crossarms on "hot" 110-kv h-frame lines Aug. 5.....*114
Taylor, Jerome J.: Correction of temperature measurement on short conductors. Dec. 23..... *104
Temperature correction for short conductors. Nov. 25..... 98
Tipton, E. W.: Relay for air-cooled type transformers July 8..... 116
Triska, J. A.: Oils and lubrication of steam turbine, pt. 6, Dec. 9; pt. 7, Dec. 23 110
Tulloch, D. F.: Interruptor locates submarine cable faults Aug. 5.....*108

VAN METER, L. M. & L. C. Edwards: Marble-sand blast removes dimout paint Oct. 14.....*105
Vaughan, H. R.: Pros and cons of fast reclosing of transmission. Dec. 23 *66

WALDRON, RICHARD C.: How a lightning surge passes Sept. 2.....*102
How to calculate voltages, currents and losses in sheaths of single-conductor cables Nov. 25.....*102
Limiting lightning surge at cable terminals Sept. 16.....*115
Metallic sheaths, shielding grounded, pt. 1, Sept. 30, 95; pt. 2, Oct. 14, 134; pt. 3, Oct. 28, 108; pt. 4, Nov. 11 136
Warren, Glenn B.: Potentialities, limitations of the combustion gas turbine, pt. 1, Oct. 28, *83; pt. 2, Nov. 11 ..... *99
Wells, Clark J.: Power supply for irrigation Sept. 30.....*112
Whitmer, E. W.: Transformers and lightning Aug. 5..... 142
Woodward, C. B.: Fixed boost and capacitor on even terms Nov. 11.... 203
Wright, E. M.: Method of determining shortest distance between two lines Nov. 11.....*130

YARRILL, H. G.: Branch resistance of "delta" network Sept. 2.....*106

ZERSEN, CARL W.: Large outdoor foot candle meters suggested Sept. 16. 161